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DOI:

[10.14512/gaia.25.3.7](https://doi.org/10.14512/gaia.25.3.7)

Document Version

Publisher's PDF, also known as Version of record

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Citation for published version (APA):

Walshe, R., & Argumedo, A. (2016). Ayni, ayllu, yanantin and Chanincha: The cultural values enabling adaptation to climate change in communities of the potato park, in the peruvian andes. *Gaia-Ecological perspectives for science and society*, 25(3), 166-173. [10.14512/gaia.25.3.7](https://doi.org/10.14512/gaia.25.3.7)

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Ayni, Ayllu, Yanantin and Chanincha

The Cultural Values Enabling Adaptation to Climate Change in Communities of the Potato Park, in the Peruvian Andes

Rory Walshe, Alejandro Argumedo

There is a critical need for effective and sustained adaptation to the effects of climate change for indigenous peoples. Despite this, adaptation policies often neglect the cultural values that we show to be crucial to their ability to respond, and instead prioritise instrumental and scientific framings of climate change.

Ayni, Ayllu, Yanantin and Chanincha.

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GAIA 25/3 (2016): 166–173

Abstract

Rural communities in the Peruvian Andes are already feeling the negative impacts of climate change, further impacts are expected to arrive comparatively early and be particularly damaging for indigenous communities in the mountains. Therefore there is a pressing need to ensure effective and sustained adaptation is undertaken. Rural communities studied in the Potato Park in the Cusco Region of Peru are shown to possess a number of cultural values, in Quechua known as *ayni*, *ayllu*, *yanantin* and *chanincha*. These form the foundation of the community's ability to successfully respond to the challenges presented by climate change. The limited current adaptation strategies and methods not only neglect these values but also undermine and erode them. Future strategies should instead complement, maintain and utilise these values.

Keywords

climate change adaptation, culture, indigenous people, Peru, Potato Park

It is accepted that the least developed countries and communities will disproportionately suffer as a result of the impacts of climate change (Stern 2006). Mountainous indigenous peoples warrant particular attention because the impacts they will experience are anticipated to be early and severe due to the sensitivity of their environments in high altitude zones (Galloway McLean et al. 2011) and their biodiversity-reliant livelihoods in these fragile ecosystems (Kothari et al. 2012).

However, it is over-simplistic to portray indigenous peoples as purely vulnerable. In reality many indigenous groups have shown themselves to be highly attuned to changes in the environment and have developed a suite of practices in response (Salick and Byg 2007). These practices are often referred to as “traditional knowledge” and are increasingly being accepted as a potential contributor to the management of climate change (Mercer et al. 2010). However, as Briggs (2005) argues, much of the research examining traditional knowledge represents empirical or “(arte)factual” evidence of specific coping strategies in communities, instead of a deeper understanding of the epistemology of knowledge within culture. Much of the literature on traditional knowledge neglects to consider how wider culture enables adaptation to be successful, or, how wider culture can act as a barrier to adaptation (Nielsen and Reenberg 2010, Jones and Boyd 2011).

Thus far the policy landscape has largely failed to consider local culture in adaptation policy. Instead, the international community often pursues counter-productive technical top-down policies that neglect the culture of indigenous peoples and their capacity to respond (Tauli-Corpuz and Lynge 2008). Consequently, if adaptation is to be successful for indigenous people it must account for the culture where it is applied (Adger et al. 2012). Defining culture is somewhat “messy”, however for the sake of this research, it is defined as the attitudes, values, beliefs, narratives and experiences, and the resulting shared behaviours in response to climate change impacts (Krüger et al. 2015). The overarching aim of this research was to determine, survey and understand the distinct cultural components (henceforth referred to as “cultural values”) that influence climate change adaptation in the indigenous com-

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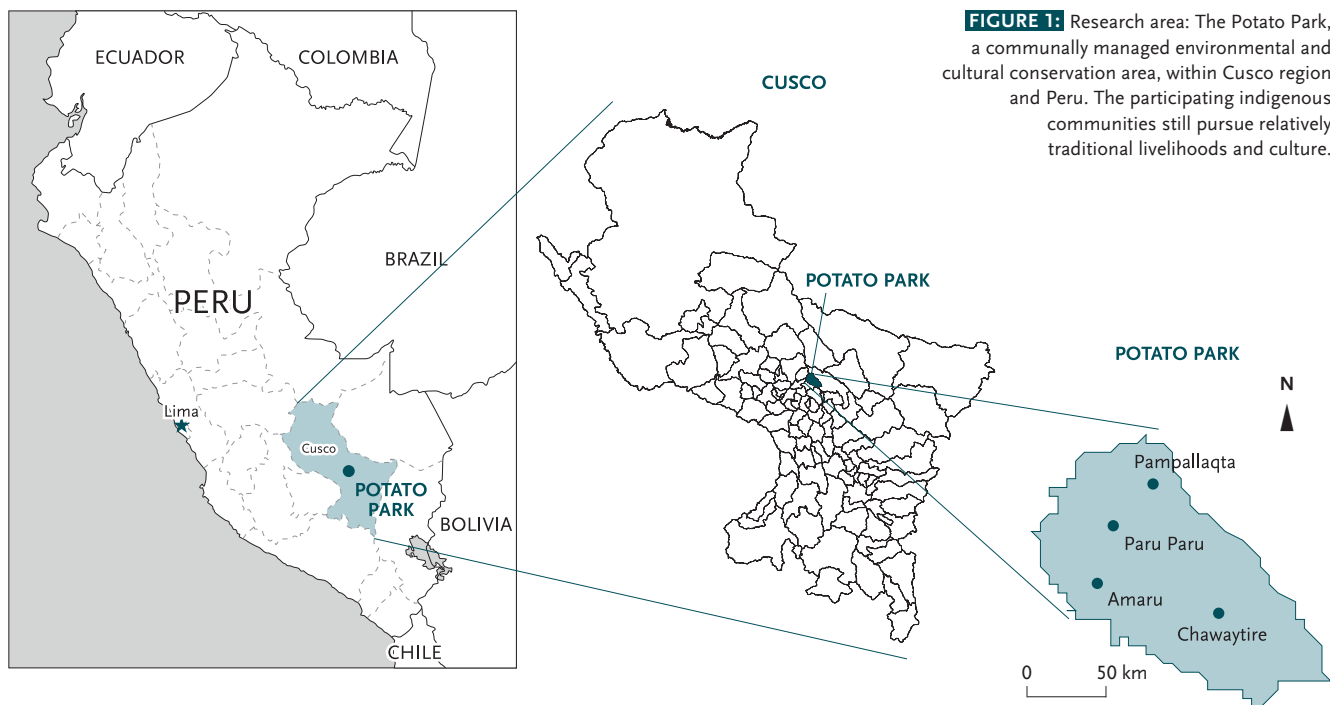


FIGURE 1: Research area: The Potato Park, a communally managed environmental and cultural conservation area, within Cusco region and Peru. The participating indigenous communities still pursue relatively traditional livelihoods and culture.

munities of the Potato Park. As well as identifying these cultural values and how they relate to responses to climate change, the research investigated their distribution and ownership in order to learn lessons for adaptation policy in rural Andean Peru.

The Potato Park, Cusco Region, Peru

This research collected primary data from four indigenous Quechua communities in the Peruvian Andes: specifically the villages of Chawaytire, Pampallaqta, Paru Paru and Amaru. These communities collectively make up the Potato Park (the Park), a high altitude (approximately 3,900 meters above sea level), 15,000 hectare communally managed environmental and cultural conservation area in the Cusco region of Peru, with approximately 6,000 inhabitants (figure 1). The area was selected because the four communities are comparatively accessible; while at the same time they still pursue relatively traditional livelihoods and culture (Argumedo and Stenner 2008).

These communities actively deploy aspects of their traditional livelihoods and culture in response to the considerable changes in the climate that they are already experiencing, such as erratic weather, late and unpredictable rains, temperature changes, and with concomitant increases in pests and diseases and alterations in crop yields (among others see IPCC 2013).

Research Methods

Stage 1: Investigating Cultural Values

The research was conducted in the Park in August 2014. Stage 1 consisted of preparatory field visits to the Park to have initial informal discussions about cultural values with community gatekeepers and *paccus*¹. These were guided by pre-existing theory and literature on Andean culture, as well as long-term ethnographic observation of the communities (Argumedo and Yun Loong Wong 2010, Webb 2012). Four distinct cultural values were identified by the participants, which are used in responding to climate change (how these manifest in the context of the Park is explored later):

Ayni (*reciprocity through mutuality and compensation*) refers to specific forms of morally grounded cultural or economic reciprocity, within the context of the Andean rural community. It extends to the periphery of urban centres in Peru, Bolivia, Ecuador and Chile (Taqe 2005, p. 20).

Ayni is a guiding principle for decision making in the Park. However, it is not constrained to human beings. Instead, it implies that all elements of nature give and receive to contribute to the harmony of the world (Bélair and Ichikawa 2010). It is also the most widely known and investigated cultural value of indigenous Andean communities (Ishizawa 2006). As Williams (2005) notes, the concept of *ayni* is integral to that of *buen vivir*², which has become increasingly popular in the discussion surrounding climate justice of indigenous peoples (Walsh 2010), and is now even enshrined in the constitutions of Bolivia and Ecuador (Gudynas 2011).

Ayllu (*collectiveness through a social collective of kinfolk*) is a social unit originating from the Andean Inca over 3,000 years ago. The

¹ Shaman or traditional owners of rituals and customary knowledge.

² *Buen vivir* (Spanish) is used in Latin America to describe alternative developments that are focused on the “good life” in a broad sense (Gudynas 2011); this is used interchangeably with *sumak kawsay* (Quechua).

fundamental community cell, it currently exists as a social organisation of rural communities in Peru, Bolivia, Ecuador and Chile. It includes concepts of common duties and obligations to family and territorial demarcation to achieve equality for all community members (Taqe 2005, p. 21).

More than just a construct, *ayllu* underpins collective land stewardship and social relations within communities (IIED 2005). The communities of the Park practice certain rituals in order to bring harmony to *ayllu* in accordance with the agricultural cycle (Ishizawa 2006, p. 211). For this reason *ayllu* has been used to underwrite the modern governance principles of the Park as a conservation area.

Yanantin (*equilibrium through complementary dualism*) is the Andean philosophy that views the opposites of the world (such as male/female) as interdependent and essential parts of a harmonious whole.

Yanantin is manifested in the belief that existence relies on the tension and balanced interchange between the various “polarities” (Webb 2012). In this sense, polarities exist throughout the worldview of indigenous culture, for example, between the wet and dry season. There is a very definitive ideological and practical commitment within indigenous Andean life to bringing these seemingly conflicting opposites into harmony without destroying or altering either one (Webb 2012). The ubiquitous application of *yanantin* has obvious advantages in terms of balancing ecological cycles and processes. Brush et al. (1981, p. 81) details the existence of indigenous seed banks and exchange networks which share resilient seeds between communities in order to balance two common polarities; drought in the summer and frost in the winter.

Chanincha (*solidarity through unity and fellowship*) is socially based solidarity that arises in communities in the face of common interests, needs and responsibilities.

This value is the least known of these four, with almost no mention of it in contemporary literature. Like the other terms it is not purely in relation to the human world. Instead it applies to the *pacha*³; the human (*kay pacha*), natural (*ukhu pacha*) and

spiritual world (*hanaq pacha*) collectively (Raaflaub and Talbert 2009). In this way, *chanincha* differs from *ayllu*, in that *chanincha* compels communities to strive for unity with the natural and spiritual world, while *ayllu* focuses on the human social unit. *Chanincha* is used in the agricultural management systems of the Park, which are based on principles of ecological, productive, and social solidarity. At the core of *chanincha* is a profound respect for *Pacha Mama* (Mother Earth) and reverence for the power and fragility of the environment – or the *Apus* (Mountains) (IIED 2005).

Stage 2: Focus Groups Guided by iPad Questionnaires

The second stage of the research involved taking these cultural values from the first stage and designing a dual methodology of focus group discussions guided by an iPad based questionnaire around them in order to investigate their extent and use in response to climate change in the Park.

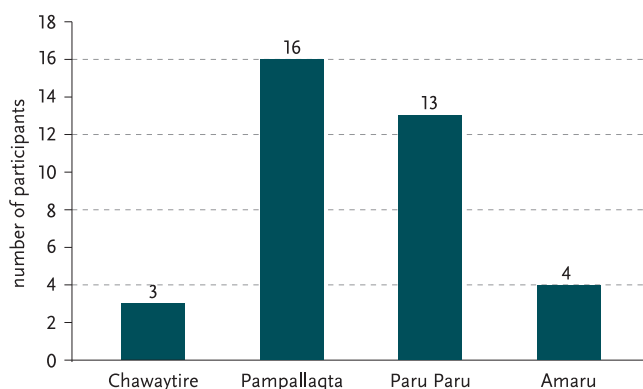
First the participants were recruited from each of the four communities using snowball sampling. The division of participants between the four communities is shown in figure 2 and is roughly proportionate to the population size of each community.

This sampling method was selected because the first stage exposed a complex and intangible hierarchy to the ownership and communication of cultural values. Such sampling was only possible with the help of local research assistants from the communities. The participants were then separated into five small groups (between five and ten) according to key demographic divisions: female citizens, male citizens, youth (both male and female but less than 18 years old), *paperos*⁴ and *paccus*.

The *paccus* were sought out because it was revealed in the preparatory visits that while many people were aware of the cultural values, often only *paccus* were allowed to communicate it to outsiders. The genders were separated not because of any knowledge gap (women play a critical role in agriculture in the Park, particularly in the cultivation of potatoes, where they are considered experts and associated with *Pacha Mama* and fertility, cf. Tapia and De La Torre 1998), but because the preparatory trip showed that female participants were more forthcoming when not in the presence of men. The youth group was included in order to investigate whether local culture is being eroded by the influence of globalisation, since the literature suggests that traditional culture may be viewed as increasingly irrelevant by younger people as trade and migration consolidates to population centres where traditional cultures are out of context and subsequently lost (Balick 2007, p. 9).

The focus groups were undertaken separately to avoid any influence from other participants and were structured as an informal qualitative focus group discussion (in Quechua), guided by an iPad based questionnaire, with the support of local research assistants. The iPads delivered 37 qualitative and quantitative ques-

FIGURE 2: Number of participants by community in the survey in August 2015. Participants were recruited using snowball sampling.



3 Roughly translated as “world”, *pacha* is an Incan conception of the different spheres of the cosmos in Incan mythology (Raaflaub and Talbert 2009).

4 Farmers, traditionally cultivators of the areas native potatoes – women particularly (see Tapia and De La Torre 1998).

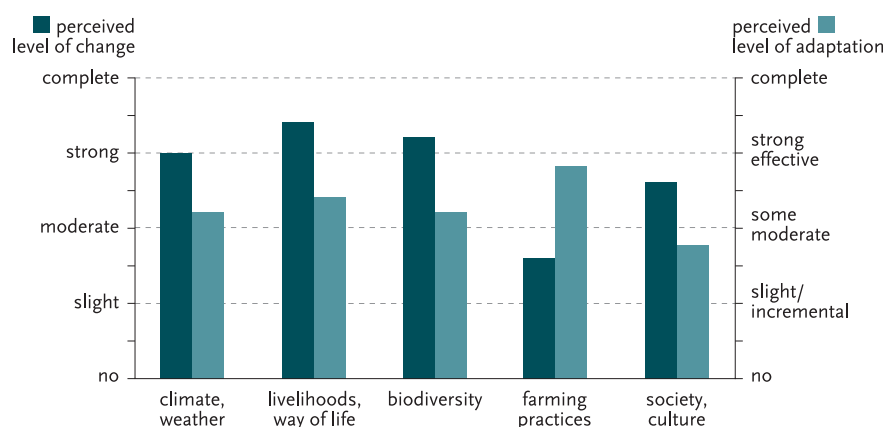


FIGURE 3: Perceived levels of change in the last 30 years compared to perceived levels of adaptation actions taken in the last 30 years by sector (average from iPad questionnaire across all focus groups).

tions. The quantitative questions allowed for some basic statistical representation (see figures 3 and 5). The questions involved interactive sliding Likert scales or multiple choice options in the answers fields where possible, and were programmed (using *isurvey*) to audibly read pre-recordings of each of the questions in Quechua, which ensured uniformity in the wording of the questions as the starting point for focus group discussions. The iPads were also set to automatically synchronise (including the results, questionnaire time and GPS location). In this way data was collected from 36 participants in total, with qualitative and quantitative data gathered from the iPads to be cross-referenced with recorded, translated and transcribed qualitative data from the accompanying focus group discussions.

Adaptive Strategies

Perceived Changes and Adaptations

Before ascertaining how the values are used, the iPad questionnaire asked participants to rank the level of change (with five levels, from “no change” to “complete change”) and the level of adaptation (with five levels from “no adaptation” to “complete adaptation”) in five categories that were decided and discussed in the preparatory field visits as key distinct parts of village life (figure 3).

Generally the change in all five categories is perceived as high, with livelihoods experiencing the most change. Biodiversity and climate and weather are ranked second and third respectively for perceived change. This is understandable considering that agriculture is the primary livelihood in the Park, and that climate and biodiversity changes would produce amplified knock-on changes in agriculture.

Interestingly, farming practices are the lowest in the community’s perception of change. This was corroborated in a different iPad question with “crops” being rated as the most traditional aspect of life in the Park. However, farming practices are also where the most adaptations are seen to be taking place. In one iPad question and follow-up discussion, the focus groups unanimous-

ly agreed that the innovations in agricultural practices are based on pre-existing cultural values and traditional knowledge. For example, one specific change remarked upon in all of the focus group discussions was that certain potato crops can no longer be cultivated in the lower zones of the Park, since there has been a rise in the incidence of diseases linked to higher temperatures. As a result, the communities have shifted cultivation zones upwards. While this is clearly an adaptation, it is not a change in farming methods per se. This, and many other adaptations like it (see IPCC 2013), explains why changes in farming practices are rated as the lowest, and crops remain the most traditional (in regards to number

of varieties and practices/methods), while at the same time, the extent of adaptation in farming practices is rated as the highest.

Existing Adaptations to Climate Change, and How the Four Cultural Values Relate to Them

The focus group discussions detailed a number of current actions and practices in the Potato Park, which can be characterised as a response to climate change. The following is not an exhaustive list of adaptive strategies in the Park (see IPCC 2013). The focus groups attributed these practices as grounded in interpretations of the four cultural values. However each adaptation, practice and cultural value cannot and should not be viewed in isolation. Instead, like the Andean cosmo-vision, these should be viewed as part of a single interconnected and holistic response to change – including climate change (Argumedo and Stenner 2008, Argumedo 2008, IPCC 2013, Bélair and Ichikawa 2010). The communities identified the following practices:

The conservation and deployment of agrobiodiversity: The region in which the Park is situated contains more than half (approximately 2,300) of the world’s total varieties of potato. A single agriculture plot in the Park is said to contain up to 150 varieties of potato (Argumedo and Yun Loong Wong 2010). The agrobiodiversity in the Park is under threat from climate change, particularly with an increase in erratic weather and temperature changes (IPCC 2013), as well as from the pressures of market driven capitalism. Due to the demands of capitalism, many Peruvian communities are transitioning away from the hardy native potato types, to higher yield mass cultivated white potato breeds, which require the support of fertilizers and pesticides (Kirkland 2012). In response to the effects of climate change the communities of the Park are rejecting non-native breeds and instead collectively conserving potato diversity and sharing best practices and varieties that are resilient to changes in the climate.

The conservation of biodiversity as an adaptation is made possible by the collective land management of the Park – or “common-field” agriculture (Godoy 1991). In this collective land man-

agement system communities coordinate the production of crops and livestock in designated sectors and to a common sequence and schedule, that is, land use is both spatially and sequentially coordinated. Such a land use system is key to maintaining biodiversity in the Andes (Godoy 1991). Individual households have rights to sections of land within common fields that are used by all, for all (Argumedo and Yun Loong Wong 2010). This system is predicated on the *ayllu* (collectiveness) structure since it relies on these community units and is intertwined with the Andean holistic worldview that recognises the interconnectedness across all pachas of the cosmo-vision, including the spiritual dimension (Argumedo and Yun Loong Wong 2010).

The alteration of cultivation patterns and techniques: One alteration of cultivation patterns is the aforementioned shifting of various cultivation zones in response to increasing temperatures at lower altitudes as a result of climate change. Communities have rejected the use of modern farming techniques and chemicals in favour of maintaining traditional practices that are better connected with (and are able to be tailored to) local cycles and realities, including the impact on agriculture as a result of climate changes. Traditional crop rotation in the Park particularly applies the concept of *yanantin* (equilibrium) to nutrients in the soil, where rotation occurs every three to nine years to cultivate crops and then the land is left fallow in order to replenish the nutrients of the soil.

Social organisations and resource management: The actions described above are coordinated within the traditional social organisation of the Park. This social organisation divides the land into ecological zones at various altitudes, each of which provide key products, which are then exchanged and distributed in order to fulfil the livelihood needs across the communities living in the zones.

The social organisation and resource management includes organising collective labour in synchronisation with agrarian cycles so that productivity can be maximised at critical times such as harvest and planting. The produce is then divided among the communities. Such practices intrinsically rely on the principle of *ayni* (reciprocity), since if the ecological zones or communities acted independently or selfishly the productivity of each zone would be far less and each would only receive the products from their zones, which would be insufficient for their livelihoods. It also allows for the fallow land to be used in rotation and for livestock grazing (camelids mostly) or for growing medicinal plants (Bélair and Ichikawa 2010).

More recently the Park has also adapted in terms of its cooperation with external organisations for mutual benefit. This includes the International Potato Centre (CIP) which works with the communities to categorise, store and breed potato seeds (Scott 2011), and *Asociación ANDES*, who assisted in officially identifying the Park as a collective environmental and cultural conservation area. *Ayni* was classified as “very important” by the focus groups in contacting these “outsiders”; including other communities, farmers and nongovernmental organisations (NGOs). The most likely reason is that other local communities, farmers, and to a lesser extent local NGOs, share the cultural value of *ayni*. This hypothesis is given credence because communities ranked *ayni* as “unimportant” in working with government and policy officials, who clearly do not share their cultural values. Therefore the use of cultural values (*ayni* especially) extends beyond the Park and facilitates cooperation with certain external groups. Social organisations and resource management is becoming more important as climate change impacts are being felt, particularly with regards to a loss of potato diversity as ecological zones shift upwards with temperature rises and the conservation of these potato species.



The diversification of livelihoods: The effects of climate change and other pressures on agriculture have recently led the communities of the Park to diversify into other forms of support to provide supplementary income and act as a safety net. This includes diversifying towards new and more remote markets such as producing coca tea. Another growth of income has been eco-tourism and cultural tours in the Park, with the focus groups confirming that each community preforms between two and six traditional cultural ceremonies for in-

FIGURE 4: Potato ceremony *Papawatay* in Pampallaqta, Potato Park, Peru: the ceremony starts in the afternoon and continues all night long until the next morning. Selected potatoes are spread on a ceremonial cloth. They are smoked and purified with incense.

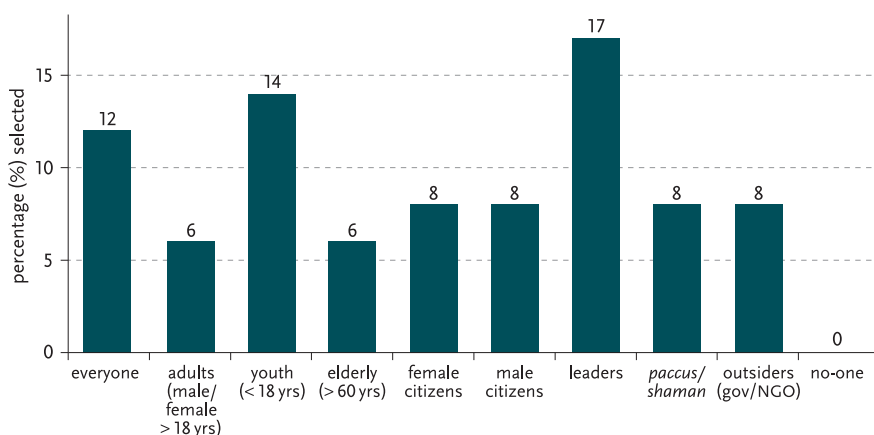


FIGURE 5: Perceived authors of adaptations in the community, selected on iPad questionnaire (percentage) by demographic group or sector. Leaders and young people are seen as playing a key role.

come per year (figure 4). Cultural ceremonies obviously rely on cultural values in a wider sense, but the tourism business is divided by rotation among the communities so that no single community benefits disproportionately. Therefore it is *chanincha* (solidarity) that ensures that the benefits are shared and distributed equally, and is not damaging to the local environment.

Distribution and ownership of cultural values: In order to investigate the distribution and ownership of these practices (and by extension, the values), the iPad questionnaire and focus group discussions turned to whom in the community was seen as creating the practices described above. The resulting data showed that leaders and young people are perceived as the two primary groups of authors of adaptations (figure 5).

All the other demographic divisions are also attributed with participating and contributing to varying extents. Clearly the whole community influences the design and use of these practices at a certain level, since there was also no obvious division between the five focus group discussions in the understanding of cultural values, and all seemed to possess the same knowledge, including adult male and female citizens and young people.

An additional iPad question and discussion focused on who in the community participates in cultural practices such as rituals and ceremonies (which can involve communicating aspects of the four values, now mostly to tourists as a result of the aforementioned diversification of livelihoods). As expected it is the elderly and *paccus* who are perceived as the largest two groups of participants in rituals, since they are seen as the custodians of culture and rituals. Interestingly young people, while considerably less involved in these rituals or ceremonies are nonetheless roughly equal participants with other demographics, including men and women. Therefore while the elderly and *paccus* are custodians of the culture, it is the leaders and the younger demographic who are seen as the authors in terms of adaptations (figure 5).

Finally the iPad questionnaire and focus group discussions investigated the perceived extent to which “people outside your community appreciate, apply and understand these cultural values”.

The majority of participants chose “little understanding and appreciation”. This implies that the interpretation of these specific values in the Park may be place-based and that other communities don’t necessarily appreciate apply and understand the same values.

Cultural Dynamic of Adaptation

Cultural Values Play a Critical Role in Adaptation

As the research shows, cultural values are at the centre of the ability to adapt to climate change in the Park. Therefore, the research corroborates the general conclusions

from other investigations of the social factors of adaptation (to name a few: Adger et al. 2012, Heyd and Brooks 2009, Krüger et al. 2015). The data offers an insight into the specific cultural dynamic of adaptation in the Park, which generates a number of lessons for Climate Change Adaptation (CCA) policy.

While the understanding and use of values is inherently place-based, the adaptations detailed above and the four values are not unique to the Park; the literature supports the assumption that similar indigenous Andean communities possess comparable values (Webb 2012, Zapata 2014, Boillat and Berkes 2013). It is not a stretch to suggest that indigenous communities worldwide may have analogous values ingrained in their social structures as a result of pursuing livelihoods based on the natural environment over long periods of time (Galloway McLean et al. 2011, Kothari et al. 2012).

Given it was expressed that other external communities (particularly those more urbanised) don’t necessarily appreciate or understand the Parks cultural values, CCA should not automatically try to recreate, instrumentalise or scale up the specific adaptations of the Park in other locations. Previous research has suggested the integration of specific traditional coping strategies or adaptations into CCA (Mercer et al. 2010). CCA frameworks should consider the cultural dimensions that underlie adaptations, and in the case of the Peruvian Andes, how these form part of the unified holistic cosmo-vision. The findings of this research should emphasise the pragmatic imperative for ensuring that cultural values are preserved in-situ and the importance of an inter-cultural dialog between all CCA stakeholders.

The pragmatic imperative to preserve cultural values in-situ is symptomatic of one of the largest dilemmas that the international CCA community faces; the struggle to reconcile techno-centric, centralised, international policy-based responses to climate change with local, place-based, small scale Community Based Adaptation (CBA). As Cannon (2013) notes, the concept of CBA is not a panacea for adaptation, and the rise in investment in CBA has neglected to account for the contested nature of communities and their divergent cultural values, priorities and solutions. The re-

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GAIA MASTERS STUDENT PAPER AWARD

Rory Walshe is the winner of the GAIA Masters Student Paper Award. His paper *Ayni, Ayllu, Yanantin and Chanincha: The Cultural Values Enabling Adaptation to Climate Change in Peruvian Andean Communities* was selected by an international jury and is now published in GAIA after successful peer review. The award 2016 was endowed by the Selbach Environmental Foundation.

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search presented here supports this assertion and illustrates that adaptation policies for indigenous communities need to avoid didactically passing down one-size-fits-all CCA directives, and instead should consider the existing capacity and climate resilience (as well as vulnerability) of indigenous groups contained within their culture.

Adger et al. (2012) argues the solution lies in considering the appropriate scale of individual and community involvement, in order to determine the goals of adaptation policies and the means of their implementation. The unique and place-based results which emerged from this research in Peru, points to the necessity of considering small scale processes within multiple policy communities, pathways and negotiations, as advocated by Adger et al. (2012), as well as critically considering the role of culture.

Time Is Running out: The Potential Erosion of Cultural Values

The research found an even distribution of cultural values among the community – including in women. The capacity and knowledge of women is often neglected in adaptation policies (Denton 2002). The even distribution of cultural values in the Potato Park echoes several examples (including in the Andes) where women were shown to be the curators of knowledge and practices surrounding agriculture and biodiversity (Tapia and De La Torre 1998, Turner and Howard 2003, Voeks 2007) and therefore must not be neglected from adaptation policies.

While there is little evidence of the erosion of cultural values in the Park, the same cannot be said of the worldwide trend of indigenous cultural erosion. Studies have shown that the younger generation are increasingly rejecting traditional culture as archaic and out of context (Walshe and Nunn 2012). However, in the focus groups, the young community member group (male and female but less than 18 years old) prioritised “technology and outside knowledge” as “very important” (on the iPads sliding Likert scale) for adaptation to climate change, while the other groups prioritised local sources of capacity, particularly biodiversity. That young people value new sources of knowledge shows openness to collaborate and innovate. However it does indicate the possibility that the younger generation may move away from their traditional cultural values, since the data also showed that more urbanised communities and external or remote organisations neither share the four values of *ayni*, *ayllu*, *yanantin* and *chanincha*, nor support them. Therefore adaptation measures should be sensitive and aware of the potential of indigenous culture, not only its pos-

itive aspects but also the potential for culture to have a negative effect on adaptation or “locking in” communities to pernicious practices (Nielsen and Reenberg 2010, Jones and Boyd 2011).

Conclusions

This research investigated and uncovered a specific set of cultural values: *ayni* (reciprocity), *ayllu* (collectiveness), *yanantin* (equilibrium), and *chanincha* (solidarity). These values were shown to permeate a number of existing adaptations used in response to climate change in the Park, from the conservation of agrobiodiversity, altering cultivation patterns, social organisation and the diversification of livelihoods. The community perceives the importance of these values very highly and their impact as very strongly positive. The data also showed that the values are generally very well-known and applied throughout the community. Moreover, since all demographics seemed to possess the same knowledge (although not necessarily participating on the same level in rituals) there is currently no evidence of erosion of the values in the younger demographic.

A recurrent theme throughout the research has been the interconnectivity and holistic nature of the Quechua cosmo-vision, which connects and pervades every aspect of life in the Park. The delineation of the four values is arguably an academic exercise, since in practice these values are indivisible from the larger overarching cultural context. It is this wider cultural context, within which the four values operate, that must be considered in CCA.

However, even the concept of CCA in a policy sense is incongruous in the cultural context of the Potato Park. Much as Kirchhoff et al. (2010) argued in an earlier issue of GAIA, the cultural presumptions of the adaptation approach frequently go unnoticed and policies generally neglect to consider the discursive framework within which “adaptation” is being presented and how the adaptation approach reflects (and prioritises) particular cultural values (Krüger et al. 2015). Indeed policies in the name of “modernisation” often not only fail, but also undermine traditional mechanisms for coping with change (Heyd and Brooks 2009). It is clear that the indigenous Andean worldview and cosmo-vision has great value for adaptation, but is also at odds with the prevailing science based adaptation policy; instead of the rich, local and qualitative understandings of, and adaptations to, climate change, CCA policy prioritises instrumental and scientific framings of climate change.

The authors wish to thank the anonymous reviewers, as well as Roger Few, George Adamson and Eleanore “el beasto” Heasley for their valuable comments and assistance. Finally, to the staff of Asociación ANDES and all the community participants, *Gracias and urpichay sonqoy*.

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Submitted February 29, 2016; revised version accepted July 19, 2016.

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